

SCAEVOLA KILAUEAE VAR. POWERSII Deg. & Deg.

Otto & Isa Degener, Volcano, Hawaii

Degener Nos. 21,762 and 21,763, collected at "Keaouhana Forest Reserve, near Pahoa, Hawaii. Among scrub; spreading 2 ft. high bush. Feb. 2, 1952.", comprised such a curious taxon "with robust leaves," that the collector suspected it to be a new variety of Scaevola kilaueae Deg. Yet fearing the specimens might, after all, simply represent plants of the species s.s., especially robust because growing under conditions of exceptional rainfall and rich soil, he left the many sheets lying fallow for nearly twenty years in the herbarium of the "Museum botanicum Berolinense" in Dahlem.

Interest in the above was revived when Dr. Howard A. Powers, geologist stationed on the brink of Kilauea Crater, Island of Hawaii and a keen amateur botanist, drew the attention of the writers to a curious naupaka he had discovered. A few twigs were collected and labeled as follows: "Degener & Degener No. 32,441. X Scaevola kilaueae X S. chamissoniana var. bracteosa Hillebr. Old look out at Pauahi Crater, Haw. Volc. Nat. Park, Hawaii. In scrub at 3,200 feet within 1 meter of S. k. (D. & D. 32,442) & 1 km. of S. c. b. on Puu Huluhulu. Discovered by Dr. Howard Powers. (Collected by Degeners) July 22, 1970."

Because of the resemblance between Nos. 21,762, 21,763 and 32,441, we believe the former two plants represent not a simple hybrid like probably No. 32,441, but rather a more or less constant variety of early hybrid origin. We surmise a plant like No. 32,441 with its limited gene pool, if isolated for a hundred generations or so by surrounding veneers of lava in a kipuka (lava oasis), would de novo evolve into a taxon resembling the new variety described below:

SCAEVOLA KILAUEAE var. POWERSII Deg. & Deg. Frutex 7 dm. altus, ramis ramulisque divaricatus. Folia rigida coriacea, 50 - 85 mm. longa, 12 - 20 mm. lata, marginē 6 - 10 serrato-dentata. Corolla flava. This variety, represented by the type Deg. & Deg. No. 21,763 mentioned above and returned to Berlin for deposit, is intermediate between S. chamissoniana var. bracteosa Hillebr., and S. kilaueae Deg., with features of the latter predominating. For instance, it is a shorter, more spreading shrub than the former taxon. Its leaf size is almost of the former, yet the texture is leathery, with only midrib showing on both surfaces and ribs showing faintly on lower surface. The few serrate-dentate teeth end almost columnar as does the apex of the leaf itself. S. c. var. bracteosa, on the contrary, has subcoriaceous leaves in which ribs and veins are prominent on both surfaces, and the teeth are more numerous and more extensively distributed. The inflorescence in length approaches that of the former; though the flowers are less in number, about 25 mm. long, narrow-lobed, and dull yellowish.